

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 8-13 are pending in the application, with claim 8 being the sole independent claim. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the Drawings

In the Office Action dated November 20, 2006 (herein "Office Action"), the Examiner objected to FIG. 1 and FIG. 2. Applicants have submitted herewith replacement drawings for FIG. 1 and FIG. 2. Applicants respectfully request the acknowledgment of the receipt, approval, and entry of these drawings into this application. Applicants believe that the term "State of the Art" is a more appropriate legend for FIG. 1 than the term "Prior Art" as suggested by the Examiner. Accordingly, Applicants respectfully request the objection to the drawings be reconsidered and withdrawn.

Objection to the Specification

In the Office Action, the Examiner objects to the specification for allegedly being arranged in an improper arrangement. Applicants respectfully remind the examiner that the Arrangement of Application Elements as provided by 37 C.F.R. 1.77 are

discretionary guidelines for the specification. Accordingly, Applicants respectfully request this objection to the specification be reconsidered and withdrawn.

In the Office Action, the Examiner objects to the specification for numerous alleged informalities. Applicants have reviewed the specification and amended it accordingly. Applicants believe that the specification as amended uses such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention appertains, or with which it is most nearly connected, to make and use the same. Accordingly, Applicants respectfully request this objection to the specification be reconsidered and withdrawn.

Objections to the Claims

In the Office Action, the Examiner objects to claims 8, 9, and 10 for numerous alleged informalities. Applicants have amended claims 8, 9, and 10 to accommodate the Examiner's request. Accordingly, Applicants respectfully request this objection to claims 8, 9, and 10 be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 101

Claims 9-13 stand rejected under 35 U.S.C. § 101 for allegedly failing to produce (claim) a real-world result. Applicants respectfully traverse the rejection and provide the following arguments to support patentability.

The Office Action fails to allege that claim 8 does not produce (claim) a real-world result that is useful, tangible, and concrete. Applicants respectfully remind the Examiner that claims 9-13 depend from independent claim 8. As such, claims 9-13 also produce (claim) a real-world result that is useful, tangible, and concrete. Accordingly,

Applicants respectfully request this rejection to claims 9-13 be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 112

In the Office Action dated November 20, 2006 ("Office Action"), the Examiner rejected claims 8, 9, 12, and 13 under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. Applicants respectfully disagree with the Examiners characterization of the claim and specification, and requests that this rejection be reconsidered and withdrawn.

In so far as the Examiner's comments on enablement can be understood, the Examiner appears to believe that claim 8 is not enabled because "the Applicants has failed to disclose in the [instant] application a written description of the simulation system that would enable any person skilled in the art to reproduce the instant simulation technique." (*see*, Office Action, Page 10).

In response, Applicants respectfully points the Examiner to Page 2 of the specification. Therein, Applicants describe well known techniques for simulating the design of electronic circuits. For example, as provided in Applicants' specification,

the logical circuits are designed using simulation systems wherein a circuit design is expressed in a hardware description language (HDL). An example of a hardware description language is Verilog as described by IEEE Standard 1364 and an example for a simulation system is NCVerilog.

(*see*, Page 2, Lines 11-15).

Applicants respectfully assert that the above description in the specification would enable one skilled in the art to make and use the claimed invention. For at least these reasons, Applicants request that the Examiner reconsider and withdraw the

rejection of independent claim 8 under 35 U.S.C. § 112, first paragraph. Similarly, Applicants request that the rejection of dependent claims 9, 12, and 13 be reconsidered and withdrawn as they stem from an independently patentable base claim and in view of their own respective features.

In the Office Action, the Examiner rejected claim 8 under 35 U.S.C. § 112, second paragraph as being indefinite for allegedly failing to point out and distinctly claim the subject matter which the Applicants regards as the invention.

In so far as the Examiner's comments on indefiniteness can be understood, the Examiner appears to believe that claim 8 is not definite because "the usage of the phrase 'jitter elements' is rejected as a result of multiple provided definitions or structures referred to as 'jitter elements' in the specification." (*see*, Office Action, Pages 12-13).

In response, Applicants respectfully point the Examiner to Page 7 of the specification. Therein, Applicants describe jitter elements that "comprise delay elements and x generator elements." Accordingly, the jitter elements may comprise 'delay elements' and 'x generator elements' as recite in the specification. Applicants request that the Examiner reconsider and withdraw the rejection of independent claim 8 under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 102

Claims 8-10, and 13 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by "IBM eServer z900 high-frequency microprocessor technology, circuits, and design methodology" to Curran et al. (herein "Curran"). Applicants respectfully traverse the rejection and provide the following arguments to support patentability.

Claim 8, as amended, is directed to a simulation system for simulation of an electronic circuit, the circuit being representable by a network of logical elements, the

circuit comprising a first and second asynchronous clock domain, wherein jitter elements are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain, the jitter elements being representable as logical elements, the values of which are randomly set.

Curran does not teach each of the foregoing features of claim 8. For example, as will be described in more detail below, Curran does not teach or suggest the "jitter elements are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain" as recited by claim 8.

The Office Action alleges that the "pad books" of Curran teach or suggest jitter elements that "are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain" as recited by claim 8. The pad books of Curran are user-specified devices that are inserted at latch inputs or outputs. (*see*, Curran, Page 639, col. 1). This clearly does not teach the inserting of the jitter elements "at predetermined portions of *circuit boundaries between the first and second asynchronous clock domain*" as recited by claim 8.

Because Curran does not teach or suggest each and every feature of independent claim 8, Curran cannot anticipate that claim. Dependent claims 9-10 and 13 are likewise not anticipated by Curran for the same reason as claim 8 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 8-10, and 13 under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

Claims 8, 9, 11 and 12 stand rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by United States Patent Application Publication No. 2004/0230414 to Hoppe

et al. (herein "Hoppe"). Applicants respectfully traverse the rejection and provide the following arguments to support patentability.

Claim 8, as amended, is directed to a simulation system for simulation of an electronic circuit, the circuit being representable by a network of logical elements, the circuit comprising a first and second asynchronous clock domain, wherein jitter elements are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain, the jitter elements being representable as logical elements, the values of which are randomly set.

Hoppe does not teach each of the foregoing features of claim 8. For example, as will be described in more detail below, Hoppe does not teach or suggest the "jitter elements are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain" as recited by claim 8.

The Office Action alleges that Page 2, paragraph [0022] of Hoppe teaches or suggests jitter elements that "are additionally insertable at predetermined portions of circuit boundaries between the first and second asynchronous clock domain" as recited by claim 8. According to paragraph [0022], a

verification engineer 44 inputs a design specification 46 to a behavioral checker 42. The behavioral checker typically comprises a general-purpose computer, which is equipped with software for developing behaviors from specification 46 into functional checker programs 48 in a description language.

(*see*, Hoppe, col. 2, para. [0022])

Clearly, this does not teach or suggest the inserting of the jitter elements "at predetermined portions of *circuit boundaries between the first and second asynchronous clock domain*" as recited by claim 8.

Because Hoppe does not teach or suggest each and every feature of independent claim 8, Hoppe cannot anticipate that claim. Dependent claims 9, 11, and 12 are likewise not anticipated by Hoppe for the same reason as claim 8 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 8, 9, 11 and 12 under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

Claims 9, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Curran and well known practices in the art. Applicants respectfully traverse the rejection and provide the following arguments to support patentability.

As discussed above, Curran does not teach or suggest each and every feature of independent claim 8. The Office Action does not provide the missing teaching or suggestion with respect to claim 8. Accordingly, the Office Action fails to provide a *prima facie* case to render obvious independent claim 8. Dependent claims 9, 11, and 12 are likewise not rendered obvious for the same reasons as the independent claims from which they respectively depend and further in view of their own respective features. Accordingly, Applicant respectfully requests that the rejection of claims 9, 11, and 12 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Other Matters

On Page 17 of the Office Action, with respect to the rejection of claims 9, 11, and 12, the Examiner refers to "well know[n] practices in the art." Although Applicants have traversed the rejection of these claims on other grounds, Applicants also submit that the facts asserted to be well-known by the Examiner are not capable of "instant and

unquestionable demonstration as being well-known" and thus are not appropriate subject matter for the taking of Official Notice. *See In re Zurko*, 258 F.3d 1379, 1385 (Fed. Cir. 2001)(holding that general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection); *see also, generally*, MPEP § 2144.03.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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